

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Adolfo S. Montero, Muhammed K. Jaber
Assignee: Dell Products L.P.
Title: System and Method for Information Handling System Multimedia Mode Boot Optimization
Serial No.: 10/782,160 Filed: February 19, 2004
Examiner: Thuan N. Du Group Art Unit: 2116
Docket No.: DC-06017 Customer No.: 33438

Austin, Texas
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Mail Stop Appeal Brief - Patents
Board of Patent Appeals and Interferences
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450

SUPPLEMENTAL APPEAL BRIEF UNDER 37 CFR § 41.37

Dear Sir:

Applicant submits this Appeal Brief pursuant to the Notice of Appeal filed in this case on March 29, 2007 and the Notification dated August 8, 2007. The \$500.00 fee for this Appeal Brief was previously paid electronically via the USPTO EFS. The Board is authorized to deduct any other amounts required for this appeal brief and to credit any amounts overpaid to Deposit Account No. 502264.

I. REAL PARTY IN INTEREST - 37 CFR § 41.37(c)(1)(i)

The real party in interest is the assignee, Dell Products L.P., as named in the caption above and as evidenced by the assignment set forth at Reel 015010, Frame 0998.

II. RELATED APPEALS AND INTERFERENCES - 37 CFR § 41.37(c)(1)(ii)

Based on information and belief, there are no appeals or interferences that could directly affect or be directly affected by or have a bearing on the decision by the Board of Patent Appeals and Interferences in the pending appeal.

III. STATUS OF CLAIMS - 37 CFR § 41.37(c)(1)(iii)

Claims 1-20 are pending in the application. Claims 1, 2, 4-7, 9-11 and 14-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0006690 issued to Du, et al. (Du). Claims 3, 8, 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Du. The rejection of Claims 5, 9, 10, 15, 17 and 18 is appealed. Appendix "A" contains the full set of pending claims.

IV. STATUS OF AMENDMENTS - 37 CFR § 41.37(c)(1)(iv)

No amendments after final have been requested or entered.

V. SUMMARY OF CLAIMED SUBJECT MATTER - 37 CFR § 41.37(c)(1)(v)

Information handling system entertainment modes typically rely on specialized hardware and an independent operating system (pg. 2, lines 18-32). Claim 1 recites an information handling system with improved multimedia performance with a multimedia mode selector operable to accept a user selection of a multimedia mode of operation (Figure 1, element 44) and a multimedia module (Figure 1, element 46) operable to boot to a multimedia mode having components configured to run in support of a multimedia application (pg. 5, line 31 – pg. 6, line 24). As one example recited by Claim 5, the multimedia module initiates power to spin-up a DVD disc drive substantially simultaneous with initiation of power to the hard disk drive (pg. 7, lines 1-2). As another example recited by Claims 9 and 10, the multimedia module bypasses POST for boots to the multimedia mode (pg. 6, lines 26-27; Figure 2, element 54). Claim 10 recites that selection of a multimedia mode modifies boot to enable multimedia devices and disable non-multimedia devices (Figure 2, element 56; pg. 7, lines 12-14). Claim 17 recites that non-multimedia devices are hidden from the operating system (Figure 2, element 62; pg. 6, lines 29-32). Claim 18 recites a multimedia module operable to boot to a multimedia mode having selected devices enabled and selected devices disabled (Figure 2, element 56; pg. 7, lines 12-14).

In order to satisfy the Examiner's Notification of Non-Compliant Appeal Brief dated August 8, 2007, Applicants include the following addition to the summary:

1. An information handling system (Figure 1, element 10) having improved multimedia performance, the information handling system comprising:
 - plural processing components operable to process information for presentation to a user (Figure 1, elements 14, 16, 18, etc..., page 5, line 16);
 - an operating system operable to coordinate operation of the processing components in a normal mode or a multimedia mode (Figure 1, element 12, page 5, line 17);
 - a multimedia application operable to interface with predetermined of the processing components through the operating system to present multimedia information (Figure 1, element 44, page 7, line 20);
 - a multimedia mode selector interfaced with one or more of the processing components and operable to accept a user selection of a multimedia mode of operation (Figure 1, element 44, page 6, line 2); and
 - a multimedia module interfaced with the multimedia mode selector and the operating system, the multimedia module operable to boot the processing components and operating system to the multimedia mode upon selection through the multimedia mode selector, the multimedia mode having substantially only the predetermined of the processing components configured to run in support of the multimedia application (Figure 1, element 46, page 6, line 9).
10. A method for booting an information handling system to a multimedia mode, the method comprising:
 - selecting a multimedia mode to present multimedia information at the information handling system (Figure 2, element 50, page 7, line 9);
 - modifying boot of the information handling system operating system to enable multimedia devices and disable non-multimedia devices (Figure 2, element 56, page 7, line 12); and
 - running a multimedia application with the operating system and the multimedia devices to display multimedia information (Figure 2, element 64, page 7, line19).

18. A system for enhancing multimedia information presentation at an information handling system, the information handling system having plural devices controlled in a normal mode of operation by an operating system, the system comprising:

- a multimedia selector switch operable to accept selection of a multimedia mode of operation (Figure 1, element 44, page 6, line 2); and
- a multimedia module interfaced with the multimedia selector and operable to boot the operating system to a multimedia mode of operation having selected devices enabled and selected devices disabled, the selected enabled devices supporting display of multimedia information (Figure 1, element 46, page 6, line 9).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL - 37 CFR § 41.37(c)(1)(vi)

Claims 1, 2, 4-7, 9-11 and 14-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Publication No. 2004/0006690 issued to Du, et al. (Du). Claims 3, 8, 12 and 13 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Du. Applicants appeal the rejection of Claims 5, 9, 10, 15, 17 and 18. At this time, Applicants do not appeal the rejection of Claims 1-4, 6-8, 11-14, 16 and 19-20.

VII. ARGUMENT - 37 CFR § 41.37(c)(1)(vii)

Applicants respectfully request that the Board reverse the Examiner's rejections of Claims 5, 9, 10, 15, 17 and 18.

A. Claim 10

Independent Claim 10 recites, in part, "modifying boot of the information handling system operating system to enable multimedia devices and disable non-multimedia devices." The Examiner relies on paragraphs [0034, 0038, 0044] of Du as disclosing that non-multimedia devices are disabled when a multimedia mode is selected. However, in paragraph [0044] states that Du's mini-OS maintains "the rest of the system ... in a fully on and functional state." Du achieves power savings by putting "other PC subsystems ... in an idle state." Du thus teaches away from disabling of non-multimedia devices as recited by Claim 10. Since Du fails to disclose that non-multi-media devices are disabled, Du cannot anticipate Claim 10.

B. Claim 17

Claim 17 depends from Claim 10 and includes “hiding non-multimedia devices from the operating system to prevent the operating system from trying to power-up unused devices.” As described on page 6 at lines 29-31, shutting off power to non-multimedia devices hides the devices from discovery by the operating system. Such a difficulty was not contemplated by Du which relies primarily on a separate operating system to support the multi-media mode. Applicants respectfully submit that paragraph [0071] of Du, relied on by the Examiner as disclosing the hiding of non-multimedia devices, fails to anticipate Claim 17 because hiding of non-multimedia devices is not taught, disclosed or suggested by paragraph [0071].

C. Claim 18

Independent Claim 18 recites, in part, “a multimedia mode of operation having selected devices enabled and selected devices disabled.” Claim 18 is fully allowable for the reasons set forth above with respect to Claim 10.

D. Claim 5

Dependent Claim 5 recites, in part, “initiate power to spin-up the DVD disc drive substantially simultaneous with initiation of power to the hard disc drive to boot the operating system.” The Examiner relies on paragraphs [0044, 0045, 0084] to anticipate Claim 5, however, none of these references address initiation of a disc drive substantially simultaneous with a hard disk drive. Accordingly Claim 5 is fully allowable.

E. Claim 9

Dependent Claim 9 recites, in part, “wherein the multimedia module disables the POST for boots to the multimedia mode.” The Examiner relies on paragraph [0120] to anticipate Claim 5, however, Du discloses that hardware checks are still performed in the entertainment mode, with the exception of “devices not necessary for Entertainment mode.” Thus, Du still performs POST for at least some hardware devices so that POST is not disabled as recited by Claim 9. Accordingly Claim 9 is fully allowable.

F. Claim 15

Dependent Claim 15 recites, in part, “bypassing the POST otherwise automatically initiated by the BIOS.” As explained with respect to Claim 9, Du fails to teach disclose or suggest bypassing POST. Accordingly, Claim 15 is fully allowable.

VIII. CLAIMS APPENDIX - 37 CFR § 41.37(c)(1)(viii)

A copy of the pending claims involved in the appeal is attached as Appendix A.

IX. EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

X. RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.

XI. CONCLUSION

For the reasons set forth above, Applicant respectfully submits that the rejection of pending Claims 5, 9, 10, 15, 17 and 18 is unfounded, and requests that the rejection of Claims 5, 9, 10, 15, 17 and 18 be reversed.

I hereby certify that this correspondence is being electronically submitted to the COMMISSIONER FOR PATENTS via EFS on August 20, 2007.

/Robert W. Holland/

Attorney for Applicant(s)

Respectfully submitted,

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CLAIMS APPENDIX A - 37 CFR § 41.37(c)(1)(viii)

1. An information handling system having improved multimedia performance, the information handling system comprising:
 - plural processing components operable to process information for presentation to a user;
 - an operating system operable to coordinate operation of the processing components in a normal mode or a multimedia mode;
 - a multimedia application operable to interface with predetermined of the processing components through the operating system to present multimedia information;
 - a multimedia mode selector interfaced with one or more of the processing components and operable to accept a user selection of a multimedia mode of operation; and
 - a multimedia module interfaced with the multimedia mode selector and the operating system, the multimedia module operable to boot the processing components and operating system to the multimedia mode upon selection through the multimedia mode selector, the multimedia mode having substantially only the predetermined of the processing components configured to run in support of the multimedia application.
2. The information handling system of Claim 1 wherein the predetermined of the processing components comprise a CPU, memory, video devices, audio devices and input devices.
3. The information handling system of Claim 2 wherein the processing components excluded from boot by the multimedia module comprise a network interface card, a wireless network interface, and a modem.
4. The information handling system of Claim 2 wherein the predetermined of the processing components further comprise a DVD disc drive and the multimedia application comprises a DVD movie player.

5. The information handling system of Claim 4 wherein the predetermined processing components further comprise a hard disc drive storing the operating system and the multimedia module is further operable to initiate power to spin-up the DVD disc drive substantially simultaneous with initiation of power to the hard disc drive to boot the operating system.

6. The information handling system of Claim 2 wherein the multimedia module is further operable to reduce CPU clock speed after boot of the predetermined processing components to an operational state.

7. The information handling system of Claim 1 further comprising:
one or more utility applications automatically initiated by the operating system;
wherein the multimedia module is further operable to disable automatic initiation of the utility applications in the multimedia mode.

8. The information handling system of Claim 7 wherein the utility applications comprise an antivirus application.

9. The information handling system of Claim 1 further comprising:
a power switch interfaced with the operating system and operable to accept a user selection of a normal mode of operation, the normal mode having the operating system boot substantially all of the processing components after a POST;
wherein the multimedia module disables the POST for boots to the multimedia mode.

10. A method for booting an information handling system to a multimedia mode, the method comprising:

selecting a multimedia mode to present multimedia information at the information handling system;
modifying boot of the information handling system operating system to enable multimedia devices and disable non-multimedia devices; and

running a multimedia application with the operating system and the multimedia devices to display multimedia information.

11. The method of Claim 10 further comprising:
disabling one or more non-multimedia applications that are otherwise automatically initiated by the operating system.

12. The method of Claim 11 wherein the non-multimedia applications comprise an antivirus application.

13. The method of Claim 10 wherein modifying boot of the information handling system further comprises:

enabling the CPU, memory, video, audio, input and disc drive devices; and
disabling the network interface card, wireless interface and modem devices.

14. The method of Claim 13 wherein the multimedia information comprises a movie presented from a DVD disc.

15. The method of Claim 10 wherein modifying boot of the information handling system further comprises bypassing the POST otherwise automatically initiated by the BIOS.

16. The method of Claim 10 further comprising:
operating the CPU at full performance to complete the modified boot and the initiation of the presentation of multimedia information; and
throttling the CPU performance to present the multimedia information with reduced power consumption.

17. The method of Claim 10 further comprising:
hiding non-multimedia devices from the operating system to prevent the operating system from trying to power-up unused devices.

18. A system for enhancing multimedia information presentation at an information handling system, the information handling system having plural devices controlled in a normal mode of operation by an operating system, the system comprising:

- a multimedia selector switch operable to accept selection of a multimedia mode of operation; and
- a multimedia module interfaced with the multimedia selector and operable to boot the operating system to a multimedia mode of operation having selected devices enabled and selected devices disabled, the selected enabled devices supporting display of multimedia information.

19. The system of Claim 18 wherein the information handling system further comprises plural applications running on top of the operating system after boot to the normal mode of operation, and wherein the multimedia module is further operable to boot the operating system to a multimedia mode of operation having selected of the applications enabled and selected of the applications disabled, the selected enabled applications supporting display of multimedia information.

20. The system of Claim 19 further comprising a multimedia configuration GUI interfaced with the multimedia module and operable to selectively configure one or more of the devices and applications as enabled or disabled.

EVIDENCE APPENDIX - 37 CFR § 41.37(c)(1)(ix)

None

RELATED PROCEEDINGS APPENDIX - 37 CFR § 41.37(c)(1)(x)

There are no related proceedings.